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18.11.93 Bulletin 93/46(71) Applicant: **IDEMITSU KOSAN COMPANY LIMITED**
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D-40593 Düsseldorf (DE)(54) **Thermoplastic resin composition.**

(57) There are disclosed a thermoplastic resin composition comprising (A) a styrenic polymer having a high degree of syndiotactic configuration, (B) an inorganic filler and (C) a polyphenylene ether that is modified with a compound having an ethylenic double bond and a polar group in the same molecule, especially maleic anhydride, the ether having a modification rate of 1.3% or more by weight; a thermoplastic resin composition further comprising (D) a rubbery elastomer in addition to the above components (A), (B) and (C); a process for producing modified polyphenylene ether (PPO) comprising reacting 100 parts by weight of PPO with 1 to 20 parts by weight of the above compound or a derivative thereof in an aromatic hydrocarbon solvent in the presence of 15 or less parts by weight of a radical generator; and a process for producing the modified PPO comprising reacting 100 parts by weight of PPO with 1 to 5 parts by weight of the above compound or a derivative thereof at 300 to 350 °C in the presence of 0.1 to 3 parts by weight of

a radical generator which exhibits a half-life period of 1 minute at 300 °C or higher. The above thermoplastic resin composition is markedly improved in its dynamical properties especially rigidity and heat resistance.

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EUROPEAN SEARCH REPORT

Application Number

EP 92 12 0892

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
D,X	EP-A-0 422 495 (IDEMITSU KOSAN COMPANY) * page 14; example 3; table 2 * * claim 4 * ---	1,3,5, 12-13	C08L25/04 C08L21/00 C08K3/00 C08G65/48 C08F283/08 /(C08L25/04, 21:00)
A	DATABASE WPIL Derwent Publications Ltd., London, GB; AN 89-132650 & JP-A-1 075 561 (MITSUBISHI RAYON) 22 March 1989 * abstract * ---	1	
X	EP-A-0 403 023 (SHELL INTERNATIONALE RESEARCH MAATSCHAPPIJ) * page 7 - page 8; examples 1-3 * ---	7,9	
X	DATABASE WPI Derwent Publications Ltd., London, GB; AN 90-287186 & JP-A-2 202 947 (TEIKOKU JINZO KENSH KK) 13 August 1990 * abstract * ---	7,11	
A	EP-A-0 356 857 (IDEMITSU KOSAN COMPANY) * claim 4 * -----	2	
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 02 SEPTEMBER 1993	Examiner SIEMENS T.
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ----- & : member of the same patent family, corresponding document	



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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

- ☐ All claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for all claims.
- ☐ Only part of the claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid,
namely claims:
- ☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirement of unity of invention and relates to several inventions or groups of inventions,
namely:

see sheet -B-

- ☒ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- ☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid,
namely claims:
- ☐ None of the further search fees has been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims,
namely claims:



LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirement of unity of invention and relates to several inventions or groups of inventions, namely:

1. Claims 1,3,5 (completely); 12-13 (partially) :
Composition of A+B+C.
2. Claims 2,4,6 (completely); 14-15 (partially) :
Composition of A+B+C+D.
3. Claims 7-11 (completely); 12-15 (partially) :
Process for preparation of an already known compound.